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[Ser. No. 889746 07/28/86]
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Before the Board of Appeals

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AUG 18 1988

GROUP 260

88-4110

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For Appellant

Examiner's Answer

1. This is an appeal from the final rejection of claims 1-19. No claims are allowed.

A correct copy of the appealed claims appears as an attachment to the appellant's brief.

References of Record Relied on

4,506,318	Nilssen	3/1985
4,207,498	Spira et al	6/1980
3,496,518	Neumann et al	2/1970
2,587,169	Kivari	2/1952

2. Claims 1, 4-9, 12, 14-16 and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being

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indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, for example, the recitation of "voltage conditioning means connected with the power line terminal" is vague and indefinite. Note that the output voltage is exactly the same as the input voltage, 120, volts, in the absence of the full wave bridge rectifier providing an absolute voltage of one half the input voltage and means including resistor AR_1 diac D_{11} capacitor CT, ... for adjusting the time constant with a corresponding inverter output voltage adjustment. In claims 17 and 18, the recitation of a "track light system ... being operative to provide a high frequency voltage ..." is vague and indefinite. How can a track lighting system provide a frequency voltage in the absence of an inverter? How can a voltage conditioning means provide a RMS voltage of 120 volts in the absence of a full wave bridge rectifier? In fact, with the bridge and inverter, the voltage across the output terminals is 138.5 volts in the absence of RC time constant circuit FR, AR and CT since transistors Q_1 , Q_2 will switch only at an instantaneous near zero. Note that the absolute value of an output voltage is equal to $1/2$ the absolute value of the AC input after full wave rectifier and, therefore, the instantaneous magnitude of the voltage at terminals JC and x is $1/2$ even without FR, AR and CT. Claims 17 and 18 recite a power track having conductors operative to

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provide a high frequency voltage. How can "conductors" as recited by the appellant provide high frequency voltage. The essential parts of the claims such as an inverter and a full wave bridge rectifier which would make the inverter operative are missing.

3. Claims 1-5, 6-10, 11-16 and 17-19 are rejected under 35 U.S.C. 103 as being unpatentable over Spira et al in view of Kivari and Neumann.

The Spira et al reference discloses a high frequency inverter 22, illustrated in Figure 3, rectifier 21, illustrate in Figure 5, transmission line 36, illustrated to Figure 2, and lamp fixtures 40, 41. Further, in column 9, lines 25-34, the Spira et al reference teaches "Although the arrangement of Figure 4 shows the invention in connection with fluorescent lamps, it should be understood that the invention can be applied to the energization and dimming of any gas discharge lamp. Indeed, the invention can be used to operate and dim incandescent lamp..." and in column 7, lines 13-25, particularly, "Amplitude variation is obtained by delaying the application of the firing signal to thyristors 52 and 53 and thus varying the duty cycle of the inverter. Thus, the conduction time of the thyristors, during one half cycle, is reduced and less voltage is applied to the primary winding 56. The Neumann et al reference discloses a distribution system including a track which permits selective connection thereto at any point along the length of the track by means of a connector member power by 120 volts or

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240 volts, column 1, lines 35-70. See Kivari's column 1, lines 4-10, "A main object of the invention .. incandescent lamp adapted for use with ordinary house light circuit ... including means for reducing line voltage to a relatively low voltage ...". Given the Spira et al specific teaching of an incandescent lamp high frequency circuit without the ballast circuit of Figure 4, it would be obvious to use Kivari's incandescent lamp combination in lieu of ballast-lamp fixture 40. It would be equally as obvious to use the Neumann et al track power distribution means in lieu of the Spira et al transmission line distribution means 36. Note that the track means 11 of Neumann et al and track means DT of the instant case provide only mechanical support for the electrical conductors, the lamps, the sockets, ... etc. and that the operation frequency is immaterial to the track support since a track support means will support any frequency operating lamp or even a DC operating lamp.

4. Claims 1-5, 6-10, 11-16 and 17-29 are rejected under 35 U.S.C. 103 as being unpatentable over Nilssen, cited, in view of Kivari and Neumann et al. Nilssen's high frequency converter of Figure 1 corresponds exactly to the instant converter of Figure 1 with incandescent lamp THL and step-down transformer HFFT. Obviously, resistance R_3 varies the RC time constant of circuit R_2 , R_3 and C_3 with correspondingly variable RMS voltage at terminals CJ and x. It would be obvious to connect across Nilssen's terminals CJ and x either a step-down trans-

former lamp combination, such as Kivari's step-down transformer lamp combination, or 120 volts incandescent lamp without a step-down transformer, especially since Kivari teaches the same type of step down transformer, one of ordinary skill in the art would consider obvious to substitute the lamp combination of Kivari for the lamp combination of Nilssen's at terminal CJ and X in order to reduce the line voltage. Further, it would be equally as obvious to support Nilssen's incandescent lamp system in a track support, such as the Neumann et al track support, because Nilssen teaches a high frequency converter being used for powering low-voltage incandescent lamps having a step down transformer, the combination of this circuit and a lamp (load) could be used in any form such as a track light as shown by Neumann.

Response To Arguments In The Brief

In response to the appellant's arguments concerning the 112 rejection, examiner notes that besides the fact that the language of claims 1, 4-9, 12, 14-16 and 17-19 are vague and indefinite since they cannot be understood, they are missing the essential parts such as an inverter and a full wave bridge rectifier which would result in the track lighting system claimed. Appellant argues that "the power track means as defined must comprise a frequency conversion means. A person having ordinary skill in the pertinent art would have understood that such a frequency converter means would

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have to be part of the power track means". In reply, Examiner notes that this argument is not persuasive since the frequency converter means is the main part of the appellant's invention, which has not been claimed, however in absence of this feature the claims 17 and 18 cannot be operative and they are vague and indefinite since they cannot be understood. Appellant argues that Spira et al is irrelevant art since he is not teaching "Track lighting". In reply, Examiner notes that Spira et al teaches a lighting system in which a discharge lamp or an incandescent lamp could be used. He further teaches his lighting system could be used in any application (see column 9 lines 26-34). One such application for Spira's system is for mounting in a track, which would result in track light. Track lighting is a conventional type system as demonstrated by Neumann argued below. To apply Spira's system to this environment is seen to be encompassed by the "applications" contemplated by Spira. Appellant's claimed invention is the circuit used to light the lamp. Spira et al does show this circuit to energize the same type of lamp. Whether this circuit is used in a track or not would not make any difference as far as invention is concerned. However as stated above Spira et al does teach using his lamps for different application which the examiner considers track lighting to be conventional application. Still, since Neumann reference is teaching a track lighting as one type of the application of the lamp system which is taught by Spira et al, and also he teaches 120 volts,

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240 volts (column 1 lines 35-70) as claimed by appellant, it was considered obvious to one of ordinary skill in the art to use the Neumann track power distribution means in lieu of the Spira et al transmission line distribution means 36. Kivari teaches that his main object is to adapt incandescent lamps for use with house lighting circuits including means for reducing line voltage to a relatively low voltage. Since Spira et al in Figure 4 does teach use of an incandescent lamp having a high frequency circuit without the ballast, it was considered obvious to substitute Kivari's incandescent lamp combination for the ballast lamp fixture 40 (Figure 1) since substituting one incandescent lamp (Kivari's) for another type incandescent lamp (Spira's Figure 1) would be obvious and within the purview of the one ordinary skill in the art especially since the Figure 4 column 9 lines 30-34 teaches a same incandescent lamp as the one by Kivari. Therefore, the appellant's argument concerning the combination of the references are not persuasive. Appellant still argues that it is not obvious to use Kivari lamp in Spira's system since "Kivari's lamp is explicitly intended for operation on ordinary house lighting circuits or 110 volts A.C. while the Spira system operates on 255 volt/23 KHz which is totally non-ordinary for house-lighting circuits". In reply, Examiner notes that the contrary to appellant's argument Spira et al does use both 220 and 110 volts/60 Hz and further both 220 and 110 volts are being used in house light circuits.

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However Spira teaches that by the use of his high frequency inverter he could produce an output of about 23 KHz which is in the range of the appellant's frequency inverter. Kivari's incandescent lamp system includes a means for reducing the line voltage to a relatively low voltage, this is being substituted with the incandescent lamp (40) of the Spira et al, it is Examiner's position that this substitution is obvious to one of ordinary skill since the step down transformer Kivari would reduce the line voltage. (See column 2 lines 4-8). Further, Neumann is relied upon to show a distribution track lighting system which can operate 120 or 240 volts. Lastly, in reply, to appellant's arguments that the reference Nilssen cannot be combined with Kivari and Neumann since he is not teaching a track light, Examiner notes that this argument is not persuasive since Nilssen is teaching a high frequency converter (Figure 1) being used for powering low-voltage incandescent lamp which includes a step-down transformer. The combination of this circuit and a lamp (load) could be used in any form such as a track light as shown by Neumann. Further, since Kivari teaches the same type of step-down transformer, it was obvious to substitute the lamp combination of Kivari for the lamp combination of Nilssen's at terminals CJ and x in order to reduce the line voltage.

In Appellant's Brief, the Appellant alleges that the Examiner does not possess ordinary skill in the pertinent art to the proper examination of this applica-

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tion and is therefore not properly qualified to examine the instant application. Appellant may assert that he does possess ordinary skill in the art, and what may prima facie appear to constitute an obvious advantage to a person possessing less than ordinary skill in the relevant art may not so appear to a person who does possess ordinary skill in the art since that person would be aware of many more relevant issues, problems and/or considerations.

As stated in Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 227 USPQ 293 (Fed. Cir. 1985),

The issue of obviousness is determined entirely with reference to a hypothetical "person having ordinary skill in the art". It is only that hypothetical person who is presumed to be aware of all the pertinent prior art. The actual inventor's skill is irrelevant to the inquiry, and this is for a very important reason. The statutory emphasis is on a person of ordinary skill.

Appellant's allegation that the Examiner is not properly qualified to examine this application is wrong as a matter of law. It remains the Examiner's position that it would have been obvious for the hypothetical person of ordinary skill in the art to construct the Spira et al or Nilssen's in view of Kivari's and Neumann's lamp and inverter arrangement as specified by the claimed subject matter.

In conclusion, it is clear that the subject matter of the prior art taken collectively in conjunction with the level of ordinary skill in the art to

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which said subject matter pertains, teaches the claimed invention.

Conclusion

For all the forgoing reasons, the rejection of claims 1-19 is deemed proper and affirmance thereof is requested.

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